



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/286,133	04/01/1999	STEWART SABADELL	49658-024	4582

7590 02/14/2002

BRIAN D. HICKMAN
HICKMAN PALERMO TRUONG & BECKER LLP
1600 WILLOW STREET
SAN JOSE, CA 95125-5106

EXAMINER

SHARON, AYAL I

ART UNIT PAPER NUMBER

2123

DATE MAILED: 02/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/286,133

Applicant(s)

SABADELL, STEWART

Examiner

Ayal I. Sharon

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 01 April 1999.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Introduction

1. Claims 1-13 of U.S. Application 09/317,765 filed on 04/01/1999 (provisional application priority date 05/14/1998) are presented for examination.

Drawings

2. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 112

3. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The following elements of the claimed apparatus is not described in a level of detail that would enable one of ordinary skill in the art to implement the claimed apparatus: "translating the source object to a target object", "performing a first modification to the target object", "revising said target object in said target application to reflect said second modification to said source object without removing said first modification to said target object".

4. Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The following element is not described in a level of detail that would enable one of ordinary skill in the art to implement the claimed apparatus: “translating the source object to a target object”, “performing a first modification to the target object”, “revising said target object includes the step of rendering object to reflect the second modification that was made to the CAD object without undoing the first modification to the rendering object.”
5. Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The following element is not described in a level of detail that would enable one of ordinary skill in the art to implement the claimed apparatus: “translating the source object to the target object.”
6. Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable

one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The following element is not described in a level of detail that would enable one of ordinary skill in the art to implement the claimed apparatus: "inserting the one or more modifier stacks into the hierarchical tree structure."

7. Claims 9-11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The following element of the claimed apparatus is not described in a level of detail that would enable one of ordinary skill in the art to implement the claimed apparatus: "translating the first object to a second object", "performing a first modification to the second object in the second application", "performing a second modification to the first object in the first application", "performing a third modification to the second object based on data generated in response to said second modification to said first object, wherein said third modification causes said second object to reflect the second modification that was made to the first object without undoing the first modification to the second object".
8. Claim 12 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable

one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The following elements of the claimed apparatus is not described in a level of detail that would enable one of ordinary skill in the art to implement the claimed apparatus: "translating the source object to a target object", "performing a first modification to the target object", "performing a second modification to the source object", "revising said target object in said target application to reflect said second modification to said source object without removing said first modification to said target object".

9. Claims 13 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The following elements of the claimed apparatus is not described in a level of detail that would enable one of ordinary skill in the art to implement the claimed apparatus: "translating the source object to a target object", "performing a first modification to the target object", "performing a second modification to the source object", "revising said target object in said target application to reflect said second modification to said source object without removing said first modification to said target object".

Claim Interpretations

Art Unit: 2123

10. For the purposes of compact prosecution, Examiner interprets the meanings of the following terms that were not clarified or enabled in the specifications.
11. Examiner interprets an "object" as being equivalent to a geometric structure in a CAD model, be it a shell, surface, face, polygon, etc. (See Krause, Fig. 6)
12. Examiner interprets "application" as being equivalent to a software package.
13. Examiner interprets "filter objects" as being equivalent to objects that have been sorted accord to different types by a "filter".

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. The prior art cited is as follows:

16. Barequet, Gill et al. "A data front-end for layered manufacturing". Annual Symposium on Computational Geometry: Proceedings of the 13th Annual Symposium on Computational Geometry, 1997. ISBN: 0-89791-878-9.
(Henceforth "Barequet").

Art Unit: 2123

17. Krause, F. L. et al. "Processing of CAD-Data – Conversion, Verification and Repair". ACM Symposium on Solid Modeling and Applications, pp. 248-254.

1997. ISBN: 0-89791-946-7. (Henceforth "Kraus").

18. Wohlers, Terry. "STL Viewers and Editors". 1996.

<http://www.wohlersassociates.com/stl-view.html>

19. The claims are subsequently recited for Applicant's convenience. Applicant's attention is also directed to the pertinent sections of the prior art.

20. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barequet in view of Wohlers.

21. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barequet in view of Wohlers. Barequet teaches the following limitations of Claim 1:

1. A method for translating objects between applications that use different formats, the method comprising:
generating a source object in a source application;
(Barequet, p.232-233)

translating the source object to a target object in a target application, wherein the target application has a format that is not supported by the source application;
(Barequet, p.232-233)

performing a first modification to the target object, wherein said first modification is not supported by said source application;
(Barequet, p.233-236)

However, Barequet does not does not specifically teach the following limitation of Claim 1:

performing a second modification to said source object in said source application; and
revising said target object in said target application to reflect said second modification to said source object without removing said first modification to said target object.

On the other hand, Barequet specifically refers to Wohlers (p.232, col.2, para.2), and Wohlers (See p.2) specifically teaches in reference to 3 different products that were commercially available in 1996:

- a) "Pogo 3.0 converts STL to DXF and OBJ, and vice versa"
- b) "Facet Pro permits you to read binary STL files into AutoCAD and output both binary and ASCII STL files",
- c) "Jim Ten Hoven of Kohler Company (Kohler, Wisconsin) wrote a short Auto LISP routine a few years ago that reads ASCII STL files into AutoCAD."

Thus, at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of the two, because of any one of the following reasons:

- a) Barequet makes explicit reference to Wohlers,
- b) products with the claimed features (as listed in Wohlers) were already available at the time of the invention, and
- c) enabling manipulation of the same file in two different applications prevents unnecessary duplication of work.

22. As per Claim 2, Barequet in view of Wohlers teaches the limitations of Claim 1, as discussed above. In addition, Barequet teaches the following limitations of Claim 2:

- 2. The method of Claim 1, wherein the step of performing the first modification to the target object includes the step of performing a type of modification that cannot be performed using said source application.
(Barequet, p.233-236)

Art Unit: 2123

23. As per Claim 3, Barequet in view of Wohlers teaches the limitations of Claim 1, as discussed above. In addition, Barequet teaches the following limitations of Claim 3:

3. The method of Claim 1, wherein:
the source application is a Computer Aided Design (CAD) application;
(Barequet, p.232-233)

the target application is a rendering application;
(Barequet, p.232-233)

and wherein
the step of generating the source object in the source application includes the step of
generating a CAD object in said CAD application;
(Barequet, p.232-233)

the step of translating the source object to the target object includes the step of
translating the CAD object into a rendering object;
(Barequet, p.232-233)

the step of performing the first modification to the target object includes the step of
performing a modification to the rendering object;
(Barequet, p.233-236)

the step of performing a second modification to said source object includes the step of
performing a modification to the CAD object; and
(Barequet, p.232-233)

However, Barequet does not does not specifically teach the following limitation of Claim 3:

the step of revising said target object includes the step of revising the rendering object to reflect the second modification that was made to the CAD object without undoing the first modification to the rendering object.

On the other hand, Barequet specifically refers to Wohlers (p.232, col.2, para.2), and Wohlers (See p.2) specifically teaches in reference to 3 different products that were commercially available in 1996:

- a) "Pogo 3.0 converts STL to DXF and OBJ, and vice versa"

Art Unit: 2123

b) "Facet Pro permits you to read binary STL files into AutoCAD and output both binary and ASCII STL files",

c) "Jim Ten Hoven of Kohler Company (Kohler, Wisconsin) wrote a short Auto LISP routine a few years ago that reads ASCII STL files into AutoCAD."

Thus, at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of the two, because of any one of the following reasons:

a) Barequet makes explicit reference to Wohlers,

b) products with the claimed features (as listed in Wohlers) were already available at the time of the invention, and

c) enabling manipulation of the same file in two different applications prevents unnecessary duplication of work.

24. As per Claim 4, Barequet in view of Wohlers teaches the limitations of Claim 1, as discussed above. In addition, Barequet teaches the following limitations of Claim 4:

4. The method of Claim 1, wherein:
the source object is associated with a source geometry and one or more source properties; and
(Barequet, p.232-233)

the step of translating the source object to the target object includes the steps of
translating the source geometry to a target geometry; and
(Barequet, p.232-233)

translating the one or more source properties to one or more target properties.
(Barequet, p.232-233)

25. As per Claim 5, Barequet in view of Wohlers teaches the limitations of Claim 1, as discussed above. However, neither Barequet nor Wohlers teach the limitations of Claim 5. On the other hand, Krause does teach the limitations of Claim 5:

5. The method of Claim 1, wherein the step of translating the source object to the target object includes the step of:
building a mapping based on a translation between the source object and the target object.
(Krause, p.252, Fig. 6, and p.253 Col.1 para.1 and Col.2 para 1-2)

Thus, at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of the two, because products with the claimed features were already available at the time of the invention (as detailed in Krause). Note that Barequet makes specific reference to Krause (Barequet, p.232, col.2, para.2).

26. As per Claim 6, Barequet in view of Wohlers and further in view of Krause teaches the limitations of Claim 5, as discussed above. In addition, Krause in view of Wohlers teaches the following limitations of Claim 6:

6. The method of Claim 5, wherein the step of building the mapping includes the step of:
constructing a hierarchical tree structure, wherein the hierarchical tree structure is based on one or more properties associated with the source object.
(Krause, p.252, Fig. 6, and p.253 Col.1 para.1 and Col.2 para 1-2)

27. As per Claim 7, Barequet in view of Wohlers and further in view of Krause teaches the limitations of Claim 6, as discussed above. In addition, Barequet teaches the following limitations of Claim 7:

7. The method of Claim 6, wherein

Art Unit: 2123

the source object is associated with a source geometry and one or more source properties; and
(Barequet, p.232-233)

translating the source geometry to a target geometry; and
(Barequet, p.232-233)

However, Barequet does not does not specifically teach the following limitations of Claim 7:

the step of constructing the hierarchical tree structure includes the steps of:
generating a set of tree objects, wherein the set of tree objects include one or more filter objects that are based on said source properties;
(Krause, p.252, Fig. 6; and p.253 Col.1 para.1, Col.2 para 1-2, and Fig. 7)

inserting said target geometry into said hierarchical tree structure based on said one or more filter objects.
(Krause, p.252, Fig. 6; and p.253 Col.1 para.1, Col.2 para 1-2, and Fig. 7)

Examiner interprets "filter objects" as being equivalent to objects that have been sorted accord to different types by a "filter". Given that the objects in the trees (Krause, Fig.6 and Fig.7) are sorted by type, it is inherent that they have been been processed by some sort of filter.

Thus, at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of the two, because products with the claimed features were already available at the time of the invention (as detailed in Krause). Note that Barequet makes specific reference to Krause (Barequet, p.232, col.2, para.2).

28. As per Claim 8, Barequet in view of Wohlers teach the limitations of Claim 7, as discussed above. In addition, Krause teaches the following limitations of Claim 8:

Art Unit: 2123

8. The method of Claim 7, wherein the step of generating the set of tree objects includes the steps of translating the one or more source properties to one or more target properties; (Krause, p.252, Fig. 6; and p.253 Col.1 para.1, Col.2 para 1-2, and Fig. 7)

Krause does not specifically teach the following limitations:

generating one or more modifier stacks, wherein the one or more modifier stacks are based on the one or more target properties; and

inserting the one or more modifier stacks into the hierarchical tree structure.

Examiner interprets "modifier stacks" as being equivalent to the software data structure that is well-known and commonly used in the art, the "stack". Official notice is given that at the time of the invention, both stacks and trees were obvious and well known software data structures. Moreover, it would have been obvious to one of ordinary skill in the art to use these data structures in combination with the teachings of Krause in order to efficiently store and display the relationships between the components of a CAD design.

29. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barequet in view of Wohlers.

30. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barequet in view of Wohlers. Barequet teaches the following limitations of Claim 9:

9. A method for translating objects between applications that use different formats, the method comprising:
generating a first object in a first application;
(Barequet, p.232-233)

translating the first object to a second object in a second application, wherein the second object has a format that is not supported by the first application;
(Barequet, p.232-233)

performing a first modification to the second object in the second application;
(Barequet, p.233-236)

performing a second modification to said first object in said first application; and

Art Unit: 2123

(Barequet, p.232-233)

However, Barequet does not does not specifically teach the following limitation of

Claim 9:

performing a third modification to the second object based on data generated in response to said second modification to said first object, wherein said third modification causes said second object to reflect the second modification that was made to the first object without undoing the first modification to the second object.

On the other hand, Barequet specifically refers to Wohlers (p.232, col.2, para.2), and Wohlers (See p.2) specifically teaches in reference to 3 different products that were commercially available in 1996:

- a) "Pogo 3.0 converts STL to DXF and OBJ, and vice versa"
- b) "Facet Pro permits you to read binary STL files into AutoCAD and output both binary and ASCII STL files",
- c) "Jim Ten Hoven of Kohler Company (Kohler, Wisconsin) wrote a short Auto LISP routine a few years ago that reads ASCII STL files into AutoCAD."

Thus, at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of the two, because of any one of the following reasons:

- a) Barequet makes explicit reference to Wohlers,
- b) products with the claimed features (as listed in Wohlers) were already available at the time of the invention, and
- c) enabling manipulation of the same file in two different applications prevents unnecessary duplication of work.

31. As per Claim 10, Barequet in view of Wohlers teaches the limitations of Claim 9, as discussed above. In addition, Barequet teaches the following limitations of Claim 10:

10. The method of Claim 9, wherein the step of performing the first modification to the second object includes the step of performing a type of modification that cannot be performed using said first application.
(Barequet, p.233-236)

32. As per Claim 11, Barequet in view of Wohlers teaches the limitations of Claim 9, as discussed above. In addition, Barequet teaches the following limitations of Claim 11:

11. The method of Claim 9, wherein:
the first application is a Computer Aided Design (CAD) application;
(Barequet, p.232-233)

the second application is a rendering application; and wherein
(Barequet, p.232-233)

the step of generating the first object in the first application includes the step of generating a CAD object in said CAD application;
(Barequet, p.232-233)

the step of translating the first object to the second object includes the step of translating the CAD object into a rendering object;
(Barequet, p.232-233)

the step of performing the first modification to the second object includes the step of performing a modification to the rendering object;
(Barequet, p.233-236)

the step of performing a second modification to said first object includes the step of performing a modification to the CAD object; and
(Barequet, p.232-233)

However, Barequet does not does not specifically teach the following limitation of Claim 11:

- the step of performing the third modification to the second object includes the step of performing a third modification to the rendering object to reflect the second modification that was made to the CAD object without undoing the first modification to the rendering object.

Art Unit: 2123

On the other hand, Barequet specifically refers to Wohlers (p.232, col.2, para.2), and Wohlers (See p.2) specifically teaches in reference to 3 different products that were commercially available in 1996:

- a) "Pogo 3.0 converts STL to DXF and OBJ, and vice versa"
- b) "Facet Pro permits you to read binary STL files into AutoCAD and output both binary and ASCII STL files",
- c) "Jim Ten Hoven of Kohler Company (Kohler, Wisconsin) wrote a short Auto LISP routine a few years ago that reads ASCII STL files into AutoCAD."

Thus, at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of the two, because of any one of the following reasons:

- a) Barequet makes explicit reference to Wohlers,
- b) products with the claimed features (as listed in Wohlers) were already available at the time of the invention, and
- c) enabling manipulation of the same file in two different applications prevents unnecessary duplication of work.

33. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barequet in view of Wohlers.

34. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Barequet in view of Wohlers. Barequet teaches the following limitations of Claim 12:

12. A computer-readable medium carrying one or more sequences of instructions for translating objects between applications that use different formats, wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform the steps of:
generating a source object in a source application;
(Barequet, p.232-233)

translating the source object to a target object in a target application, wherein the target application has a format that is not supported by the source application;
(Barequet, p.232-233)

performing a first modification to the target object, wherein said first modification is not supported by said source application;
(Barequet, p.233-236)

performing a second modification to said source object in said source application; and
(Barequet, p.232-233)

However, Barequet does not does not specifically teach the following limitation of Claim 12:

revising said target object in said target application to reflect said second modification to said source object without removing said first modification to said target object.

On the other hand, Barequet specifically refers to Wohlers (p.232, col.2, para.2), and Wohlers (See p.2) specifically teaches in reference to 3 different products that were commercially available in 1996:

- a) "Pogo 3.0 converts STL to DXF and OBJ, and vice versa"
- b) "Facet Pro permits you to read binary STL files into AutoCAD and output both binary and ASCII STL files",
- c) "Jim Ten Hoven of Kohler Company (Kohler, Wisconsin) wrote a short Auto LISP routine a few years ago that reads ASCII STL files into AutoCAD."

Thus, at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of the two, because of any one of the following reasons:

- a) Barequet makes explicit reference to Wohlers,
- b) products with the claimed features (as listed in Wohlers) were already available at the time of the invention, and
- c) enabling manipulation of the same file in two different applications prevents unnecessary duplication of work.

Moreover, Barequet does not specifically teach the use of a computer readable medium. However, at the time of the invention, Official Notice is given that it would have been obvious and well known to one of ordinary skill in the art that non-trivial computer software applications and related data would need to be stored on some form of computer readable medium.

35. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barequet in view of Wohlers.

36. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barequet in view of Wohlers. Barequet teaches the following limitations of Claim 13:

- 13. A system for translating objects between applications that use different formats, the system comprising:
 - a memory;

Art Unit: 2123

one or more processors coupled to the memory; and
a set of computer instructions contained in the memory, the set of computer
instruction including computer instructions which when executed by the one
or more processors, cause the one or more processors to perform the steps of
(Barequet; p.231, abstract. It is inherent that a software package will run on a computer)

generating a source object in a source application;
(Barequet, p.232-233)

translating the source object to a target object in a target application, wherein
the target application has a format that is not supported by the source
application;
(Barequet, p.232-233)

performing a first modification to the target object, wherein said first
modification is not supported by said source application;
(Barequet, p.233-236)

performing a second modification to said source object in said source
application; and
(Barequet, p.232-233)

However, Barequet does not does not specifically teach the following limitation of

Claim 13:

revising said target object in said target application to reflect said second
modification to said source object without removing said first
modification to said target object.

On the other hand, Barequet specifically refers to Wohlers (p.232, col.2, para.2),
and Wohlers (See p.2) specifically teaches in reference to 3 different products
that were commercially available in 1996:

- a) "Pogo 3.0 converts STL to DXF and OBJ, and vice versa"
- b) "Facet Pro permits you to read binary STL files into AutoCAD and output both
binary and ASCII STL files",
- c) "Jim Ten Hoven of Kohler Company (Kohler, Wisconsin) wrote a short Auto
LISP routine a few years ago that reads ASCII STL files into AutoCAD."

Thus, at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of the two, because of any one of the following reasons:

- a) Barequet makes explicit reference to Wohlers,
- b) products with the claimed features (as listed in Wohlers) were already available at the time of the invention, and
- c) enabling manipulation of the same file in two different applications prevents unnecessary duplication of work.

Conclusion

37. The following prior art, made of record and not relied upon, is considered pertinent to applicant's disclosure.
38. Wolfe, Stephen. "Fixing Bad CAD Data." Computer Aided Design Report, Vol. 17, No. 1, pp. 4-7. 1997. Reproduced online, <http://www.dexcenter.com/article-fix-bad-cad-data.html>
39. U.S. Patent 4,970,666 Welsh et al., Nov. 13, 1990
40. U.S. Patent 5,561,747, Crocker et al., Oct. 1996.
41. U.S. Patent 5,655,063, Crocker, Aug. 1997.
42. U.S. Patent 5,847,956, Bronfeld et al., Dec. 1998.
43. U.S. Patent 5,819,062, Srikantappa, Oct. 1998.
44. Foreign Patent WO 9736250 Wadewitz, Oct. 1997.
45. BSD Unix 4.2 Manual Pages for "termcap" and "talk"

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ayal I. Sharon whose telephone number is (703) 306-0297. The examiner can normally be reached on Monday through Thursday, and the first Friday of a biweek, 8:30 am – 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached on (703) 305-9704. Any response to this office action should be mailed to:

Director of Patents and Trademarks
Washington, DC 20231

Hand-delivered responses should be brought to the following office:

4th floor receptionist's office
Crystal Park 2
2121 Crystal Drive
Arlington, VA

The fax phone numbers for the organization where this application or proceeding is assigned are:

Official communications:	(703) 746-7239
Non-Official / Draft communications	(703) 746-7240
After Final communications	(703) 746-7238

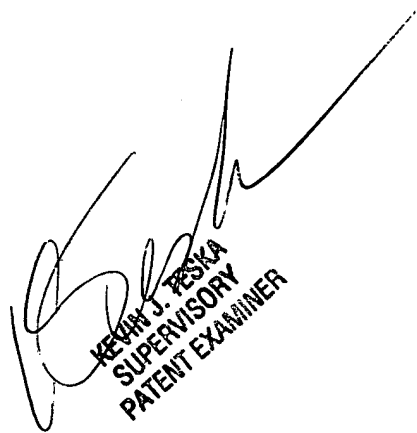
Art Unit: 2123

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, whose telephone number is:
(703) 305-3900.

Ayal I. Sharon

Art Unit 2123

February 7, 2002



KEVIN J. TESKA
SUPERVISORY
PATENT EXAMINER